

**REMARKS**

Claims 1-20 are pending in present application with claims 1, 11, 12 and 22 being independent. Claims 1, 11, 12 and 22 have been amended and claims 4 and 15 have been canceled without prejudice to, or disclaimer of, the subject matter therein. The subject matter of claims 4 and 15 has been placed onto claims 1 and 11, respectively. Reconsideration in view of the following arguments is respectfully requested.

**A. The Section 101 Rejections**

Claims 1 and 11-22 were rejected under 35 U.S.C. 101. Applicants respectfully disagree and traverse these rejections for at least the following reasons.

In the Office Action, the Examiner rejected claims 1 and 11-22 because they were drawn to a “program *per se*” and/or because claims 1 and 11-22 were drawn to a data structure that was not claimed as being embodied in a “computer readable media”. Applicants, respectively submit that the Examiner is in error.

As set forth in the Preamble of claims 1, 11, 12, and 22, the present claims are aimed at a method or programmed device “for grouping cells” or “for grouping cells in a line”. In particular as recited by claims 1, 11, 12, and 22, a cell is assigned to a group based on solutions from a “linear program”. The linear program described in the claims is not a computer program *per se* rather, it is a formulation of a problem to be solved. The solutions to such a formulation are used to assign cells to a group. Applicants respectively submit

that because the assignment of a cell to a group is a useful, concrete and tangible result that claims 1-22 constitute patentable subject matter under section 35 U.S.C. §101. *State Street Bank and Trust v. Signature Financial Group*, 47 USPQ2d 1596,1601 (Fed.Cir.1998).

In addition, Applicants note that claims 1-22 require more than a manipulation of ideas. Instead, the method and programmed devices of claims 1-22 include an assignment step that produces a cell grouping thus rendering these claims patentable subject matter (*In re Warmerdam* 33 F.3d 1354,1360 (Fed.Cir.1994)).

Accordingly, Applicants respectively submit that the subject matter of claims 1-22 is patentable subject matter under 35 U.S.C. §101 and respectively request withdrawal of the pending rejections.

### **B. The Section 102 Rejection**

Claims 1, 3-4, 7, 9, 11-12, 14-15, 18, 20 and 22 are rejected under 35 U.S.C. 102(e) as being allegedly being anticipated by U.S. Patent App. Pub. No. 2003/0143999 to Funato et al. (hereinafter "Funato"). Applicants respectfully disagree and traverse these rejections for at least the following reasons.

Claims 1, 11, 12 and 22 include the feature of generating a linear program representing a sum of weighted values associated with two different costs: a paging cost, and updating cost.

In contrast, Funato appears to disclose the use of a single cost. In Funato, a total paging cost is calculated as the sum of paging costs for two

areas called *i* and *j* (page 11, paragraph 138). Two areas are not the same as two types of paging costs, however.

Because of Funato does not disclose the use of two different costs it cannot anticipate claims 1, 3-4, 7, 9, 11-12, 14-15, 18, 20 and 22. Accordingly, Applicants respectively request withdrawal of the pending rejections and allowance of these claims.

### **C. The Section 103 Rejections**

Claims 2, 5-6, 10, 13, 16-17 and 21 were rejected under U.S.C. §103(a) as being unpatentable over Funato in further view of the Examiner's Official Notice. Applicants respectively disagree and traverse these rejections for at least the following reasons.

Initially, Applicants note that these claims depend on one of independent claims 1, 11, 12, and 22 and are therefore patentable over a combination of Funato and the Examiner's Official Notice for the reasons set forth above because the Examiner's Official Notice does nothing to make up for the deficiencies of Funato described above.

In addition, Applicants acknowledge the Examiners admission that Funato does not disclose certain features of these claims (e.g. "solutions and [that] comprise fractural values", the "rounding" of integer values, the rounding of fractional values using "region growing" or the approximation of costs for rounded values). Nonetheless, the Examiner goes on to reject these claims based on Official Notice stating that "it is notoriously well known to one of ordinary skill in the art" to carry out the features of claims 2, 5-6, 10, 13, 16-

17, and 21. Applicants respectively disagree and traverse these rejections for at least the following reasons.

Applicants note that all of these claims depend on an independent claim and, contrary to the Examiners statement, it is far from “notoriously well known” to group cells by generating a linear program. the solutions of which are used to assign a cell to a group using an additional element of claims 2, 5-6, 10, 13, 16-17, and 21. Applicants note that the Examiner has not set forth any documentary evidence to support a finding of obviousness based on Official Notice. Absent an affidavit or declaration setting forth specific factual statements to support such a position (see MPEP §2144.03), Applicants respectively request that the Examiner withdraw the rejection of claims 2, 5-6, 10, 13, 16-17, and 21 and allow these claims.

**D. The Section 103 Rejection of 8 and 19**

Claims 8 and 19 were rejected under 35 U.S.C. §103a as being unpatentable over Funato. Applicants respectively disagree and traverse those rejections for at least the following reasons.

Initially, Applicants note that claims 8 and 19 depend on either claims 1 and 12, and are therefore patentable over Funato for the reasons set forth above with respect to claims 1 and 12.

Additionally, Applicants note the Examiner’s admission that Funato does not disclose the subject matter of claims 8 and 19, namely where a variable used in the linear program may comprise a first value of 1 and a second value of 0. Nonetheless, the Examiner again states it “it would have been obvious to

a person of ordinary skill in the art” to use such values without providing any documentary evidence for such a rejection.

This again appears to be a rejection based on the Examiner’s personal knowledge or belief as to what is well known in the art. Such a rejection, unsupported by any documentary evidence, is impermissible, (see MPEP §2144.03).

Accordingly, Applicants respectively request withdrawal of the pending rejections and allowance of claims 8 and 19.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John E. Curtin at the telephone number of the undersigned below.

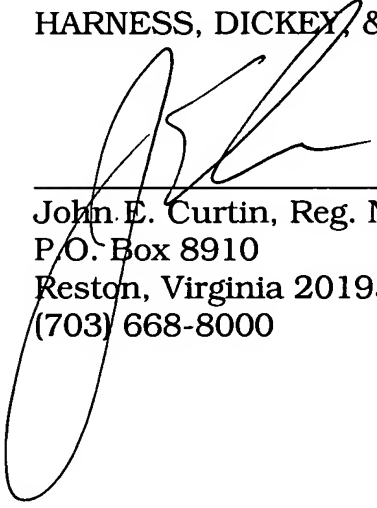
In the event this Response does not place the present application in condition for allowance, applicant requests the Examiner to contact the undersigned at (703) 668-8000 to schedule a personal interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKY, & PIERCE, P.L.C.

By



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